

REMARKS

Claims remaining in the present patent application are numbered 1-23. The rejections and comments of the Examiner set forth in the Office Action dated November 17, 2004 have been carefully considered by the Applicants. Applicants respectfully request the Examiner to consider and allow the remaining claims.

35 U.S.C. §103 Rejection

The present Office Action rejected Claim 1 under 35 U.S.C. 103(a) as being unpatentable over Matsuzaki et al. (U.S. Patent No. 6,140,992), in view of Kim et al. (U.S. Patent No. 5,355,443), and Singla et al. (U.S. Patent No. 6,597,373), and Dinwiddie et al. (U.S. Patent No. 6,195,078). Also, Claims 2-4, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzaki et al. in view of Kim, Yuki et al. (U.S. Patent No. 5,805,149), further in view of Ogawa et al. (U.S. Patent No. 6,018,331) and Singla et al. and Dinwiddie et al. Further, Claims 5, 6, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzaki et al. in view of Kim et al. and Yuki et al. and Singla et al. and Dinwiddie et al. Moreover, Claims 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzaki et al. in view of Kim et al., and further in view of Ogawa et al., and Singla et al. and Dinwiddie et al. Also, Claims 18-23 are rejected

under 35 U.S.C. 103(a) as being unpatentable over Matsuzaki et al. in view of Kim et al. and Yuki et al., further in view of Ogawa, Singla, Dinwiddie et al. and He et al. (U.S. Patent No. 6323,849).

Applicants have reviewed the above cited references and respectfully submit that the present invention, as recited in Claims 1-23, is neither anticipated nor rendered obvious by the Matsuzaki et al. reference taken alone or in combination with the Singla et al., Kim et al., Dinwiddie, Yuki et al., Ogawa et al., and He et al. references.

Independent Claims 1, 10, and 18

Applicants respectfully point out that embodiments of the present invention as claimed in amended independent Claims 1, 10, and 18 each recite, in part:

a border attribute register dedicated for containing said display attribute for said border region, wherein said display attribute is automatically selected to provide viewing contrast with image data [or character images] located near said border region, and wherein said display attribute comprises color and intensity information, and wherein said display attribute is equal to a background attribute . . . (Emphasis Added)

Specifically, the claimed embodiments of the present invention pertain to a controllable pixel border that surrounds a frame buffer region for improved viewability of a display device. That is, the pixel border displays a display attribute. For instance, the pixel border is useful

for increasing viewability, e.g., contrast, of images and/or characters that are displayed along the edge of a frame buffer region.

In particular, embodiments of the present invention as claimed in independent Claims 1, 10, and 18, recite, unlike the prior art references which do not disclose a controllable pixel border region, a display unit that comprises a border attribute register. The border attribute register is *dedicated* for containing a display attribute for the pixel border region. Additionally, the display attribute stored in the border attribute register is equal to a background attribute. This allows for good blending of the border with the background color, while still giving good contrast to any edge displayed characters, as an example.

Applicants respectfully note that none of the cited prior art references teach the border attribute register that is *dedicated for containing the display attribute that is equal to a background attribute*. That is, the Matsuzaki et al. reference taken alone or in combination with the Singla et al., Kim et al., Dinwiddie, Yuki et al., Ogawa et al., and He et al. references does not teach or suggest the controllable pixel border region of the present invention.

In particular, Applicants respectfully note that the prior art reference, Matsuzaki et al., does not teach nor suggest a controllable pixel border region of the present invention. The Matsuzaki et al. reference teaches a border producing circuit for producing border pixel data that does not include a border attribute register. As such, Applicants respectfully assert that the Matsuzaki et al. reference does not teach or render obvious a display attribute register that is dedicated for containing a display attribute used for a pixel border region. Moreover, the Matsuzaki et al. reference does not teach a border attribute register dedicated to containing a display attribute used for a pixel border region that is equal to a background attribute, as is recited in independent Claims 1, 10, and 18 of the present invention.

Additionally, the Singla et al. reference fails to remedy the shortcomings of the Matsuzaki et al. reference. The Singla et al. reference teaches a display controller that is adapted to generate image borders surrounding images within variably sized and located frames on a display device. The image border data is represented by a single color. However, nowhere in the Singla et al. reference is taught a border attribute register that is dedicated for containing a border attribute. As such, Applicants respectfully assert that the Singla et al. reference does not teach a border attribute register dedicated to

containing a display attribute used for a pixel border region that is equal to a background attribute, as is recited in independent Claim 1 of the present invention.

Moreover, the Dinwiddie et al. reference fails to remedy the shortcomings of the Matsuzaki et al. and Singla et al. references. The Dinwiddie et al. reference teaches a parallel mode on-screen display system that includes a fringe palette which produces a fringe color data signal. The Dinwiddie et al. reference teaches a fringe palette that is used to obtain or produce one of multiple color entries, as in the background palette. However, Applicants respectfully assert that the fringe palette is not a register. Instead, the fringe palette produces a color that is used in the fringe or border surrounding an image. As such, the fringe palette in the Dinwiddie et al. reference is not a register that *contains* a display attribute, as in the present invention, since the fringe palette of the Dinwiddie et al. reference is used to produce one of multiple colors used in the fringe. Moreover, nowhere does the Dinwiddie et al. reference teach that the border attribute is the same as the background attribute. Thus, Applicants respectfully assert that the Dinwiddie et al. reference does not teach a border attribute register dedicated to containing a display attribute used for a pixel border region that is equal to a background attribute, as is

recited in independent Claims 1, 10, and 18 of the present invention.

Moreover, each of the Kim et al., Yuki et al., Ogawa et al., and He et al. prior art references fails to overcome the shortcomings of the Matsuzaki et al., Singla et al. and Dinwiddie et al. references. Specifically, these additional references also do not teach, suggest, or disclose a border attribute register dedicated to containing a display attribute used for a pixel border region that is equal to a background attribute, as is recited in independent Claims 1, 10, and 18 of the present invention.

Thus, Applicants respectfully contend that embodiments of the present invention as claimed in independent Claims 1, 10, and 18 are neither anticipated nor rendered obvious by the Matsuzaki et al., taken alone or in combination with the Singla et al., Kim et al., Dinwiddie et al., Yuki et al., Ogawa et al., and He et al. references, and are in a condition for allowance. As a result, Applicants respectfully submit that Claims 2-9 which depend from independent Claim 1, as currently amended, are also in a condition for allowance as being dependent on an allowable base claim. Also, Applicants respectfully submit that Claims 11-17 which depend from independent Claim 10, as currently amended, are also in a condition for allowance as being dependent on an allowable base claim. Further,

Applicants respectfully submit that Claims 19-23 which depend from independent Claim 18, as currently amended, are also in a condition for allowance as being dependent on an allowable base claim.

CONCLUSION

In light of the facts and arguments presented herein, Applicants respectfully request reconsideration of the rejected Claims.

Based on the arguments presented above, Applicants respectfully assert that Claims 1-23 overcome the rejections of record. Therefore, Applicants respectfully solicit allowance of these Claims.

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,

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Date: April 10, 2006



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